

ABSTRACT

A method and apparatus employing algorithms enabling cellular networks to determine the range of code transmit power in downlink, as well as uplink, power control. Two exemplary algorithms provide a determination of an appropriate transmit power range for each code so that when the transmit power of any code approaches an upper limit, the transmit power of the other codes can be adjusted to catch up with the dynamic range. Even though the two exemplary algorithms have functional similarities, in the second algorithm, the frequency of reconfiguration of code transmit power range is much less than the frequency of change of the number of codes. Both algorithms are applicable for use in all modes of transmission in UMTS systems.